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# AMERICAN JOURNAL OF ARCHÆOLOGY.

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## UNIVERSITY OF PENNSYLVANIA EXPEDITION TO BABYLONIA.

### III. THE COURT OF COLUMNS AT NIPPUR.

[PLATE XXI.]

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In a former article in the *AMERICAN JOURNAL OF ARCHÆOLOGY*, Jan.-March, 1895, pp. 13-47, I described at some length the excavations of the temple of Bel at Nippur. The site of the temple occupies but a small portion of the ruin mounds at that place, and far the larger part of our finds of inscriptions were excavated in other portions of the ruins. One large cache of fine baked tablets of the Cossæan dynasty was discovered in connection with a large building of most interesting character on the southwestern side of the Shatt-en-Nil, directly opposite the temple, in that part of the mounds marked I in the plate accompanying my last article, and also in the plan of levels (PLATE XXI). In the first year of our excavations our camp was pitched on the highest point of the mounds on that side of the old canal bed, marked 24 metres on the plan of levels, near the figure I on that plan (FIG. 48). There was some delay in commencing excavations because, not having filed a topographical plan at the time of application for a firman, according to the law, it was agreed that after reaching Nippur we should not begin to excavate until such a plan had been prepared, and accepted by the Turkish government.

During the few days while the plan was in preparation we were occupied in building our camp. For this purpose bricks were needed, and workmen were sent out to gather them wherever they could be found upon the surface of the mound. Some of the men engaged in this search found a brick structure just appearing above the earth in a gully beneath the camp to the northeast, and proceeded on their own responsibility to excavate the structure and remove the bricks. Some of the bricks which they brought in were inscribed. This led to an investigation of



FIG. 48.—CAMP FROM EAST, FIRST YEAR, 1888-89, GREAT TRENCH IN FOREGROUND.

the source of supply, and induced us to commence excavations at the point where brickwork had been discovered containing inscribed bricks. The brickwork proved to be part of a tomb made of bricks taken from various structures, chiefly on the temple hill, prominent among which were bricks of Ur-Gur, Ishme-Dagan and Meli-Shiha (Assurbanipal). In this tomb were found one coffin, several bodies, and great quantities of pottery, beads and small objects. Not far away we discovered a second tomb (FIG. 49), containing at least ten bodies, buried at different times—some even after the roof had caved in. This tomb was built upon

a fragment of a brick column. All about both tombs were coffins—I had almost said countless coffins—of clay, side by side, in nests, one across another, two and even three bodies in one coffin. Sometimes jars had served as coffins. Indeed, the interments were in every conceivable fashion. Naturally we at first supposed that we had found the necropolis of Nippur, and the columnar construction which we unearthed at this point we at first imagined to have had some connection with the interment of the dead. But as our work proceeded it became manifest

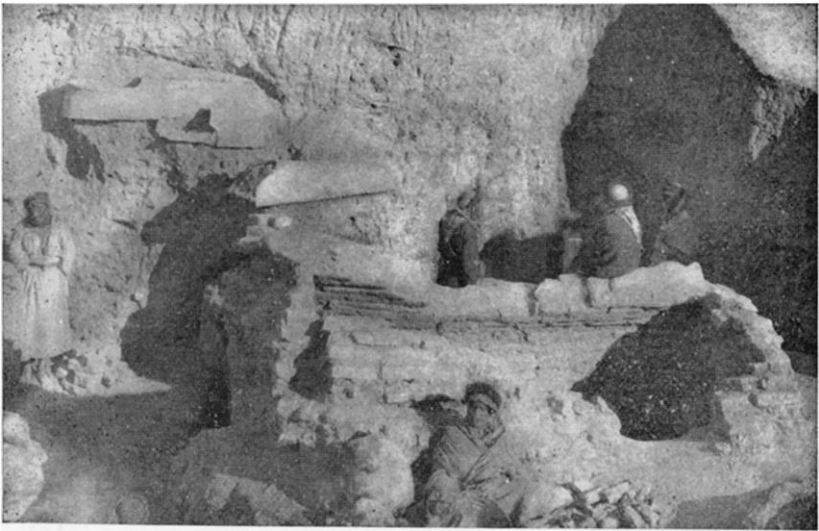


FIG. 49.—TOMB AND COFFINS ON RUINS OF BABYLONIAN PALACE.

that, whatever might have led to the choice of this particular spot for so many interments, they had no direct connection with the intention of the building itself, every interment having taken place after the building had lain in ruins for a long period.

The building which we thus accidentally discovered, and which has not yet been completely explored, proved to be, next to the temple itself, the most interesting and ambitious structure excavated at Nippur up to date. The court of columns which we first laid bare (FIGS. 50 and 51) was fifteen metres square. The floor consisted of a pavement of unbaked bricks of small size and good make, two to three metres in depth. Around this, on three sides, ran a sort of edging consisting of a double row of burned

bricks, out of which rose four round brick columns resting on square pillars of brick descending about a metre beneath the surface (Fig. 52). The southeastern or fourth side differed from the other three sides only in the matter of the brick pavement between the columns, for on this side there were four rows of bricks instead of two, making a complete pavement. On the northeastern side, owing to the slope of the hill in that direction, the brick pave-

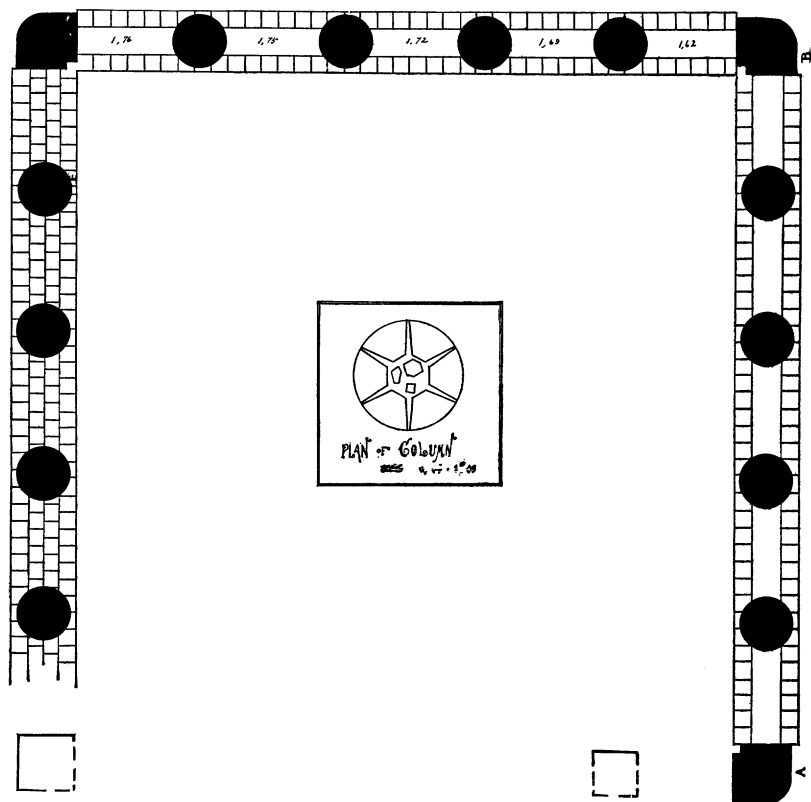


FIG. 50.—COURT OF COLUMNS. EXCAVATIONS OF 1889. SCALE, .008 M. = 1 M.  
SCALE OF PLAN OF COLUMN, .016 M. = 1 M.

ment and the foundations of the columns were almost entirely washed away; nevertheless, from the little which remained, it seemed probable that this side was the same as the northwestern and southwestern sides, and I have ventured to assume that this was the case. The corner columns were of a peculiar shape, partly rounded, partly square, as will be seen by a reference to the plan (Fig. 50). The corners were  $12^\circ$  off the cardinal points,

as in the case of the Temple. In front of this court, on the southeast side, were the remains of a long narrow pavement, on which stood two columns of larger size, but everything else in this direction was ruined by water.

The columns of the court were almost exactly a metre in

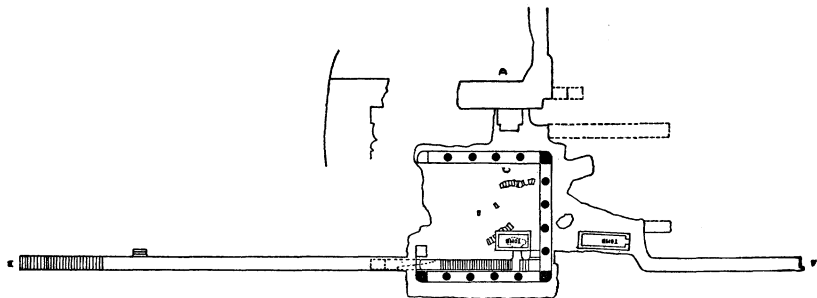


FIG. 51.—EXCAVATIONS ABOUT COURT OF COLUMNS, 1889.

SCALE, 0.00125 M. = 1 M.

diameter at the base. They had been so broken up by later generations to obtain material for building that an entire column could not be restored. The portions of the columns which were still in place, to the height of a metre or thereabouts, were constant in diameter, but some of the fragments which we found

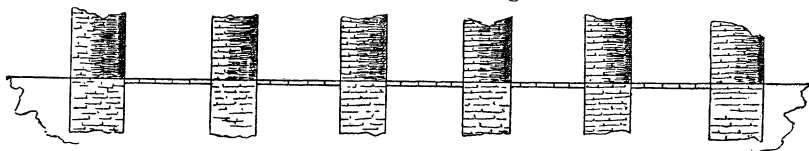


FIG. 52.—ELEVATION OF A B OF FIG. 51, SHOWING FOUNDATIONS OF COLUMNS.

scattered here and there were of so much smaller size that Mr. Field, the architect of the expedition in the first year, was inclined to think at first that they belonged to other columns. It was finally shown, however, that these small pieces, the smallest not being more than about half a metre in diameter, were parts

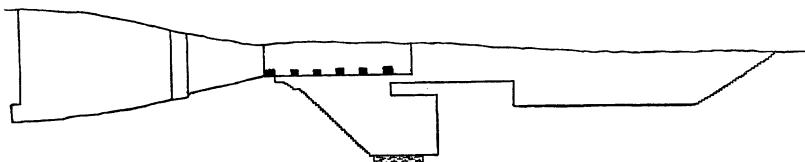


FIG. 53.—ELEVATION OF TRENCH A B OF FIG. 51, SHOWING DEPTH OF EXCAVATION BENEATH THE COURT OF COLUMNS; ALSO CONTINUATION AND LEVEL OF TRENCH TO BOTH SIDES OF SAME.

of the same columns. One fragment, somewhat larger than the

rest, showed that the rate of diminution of diameter in the upper

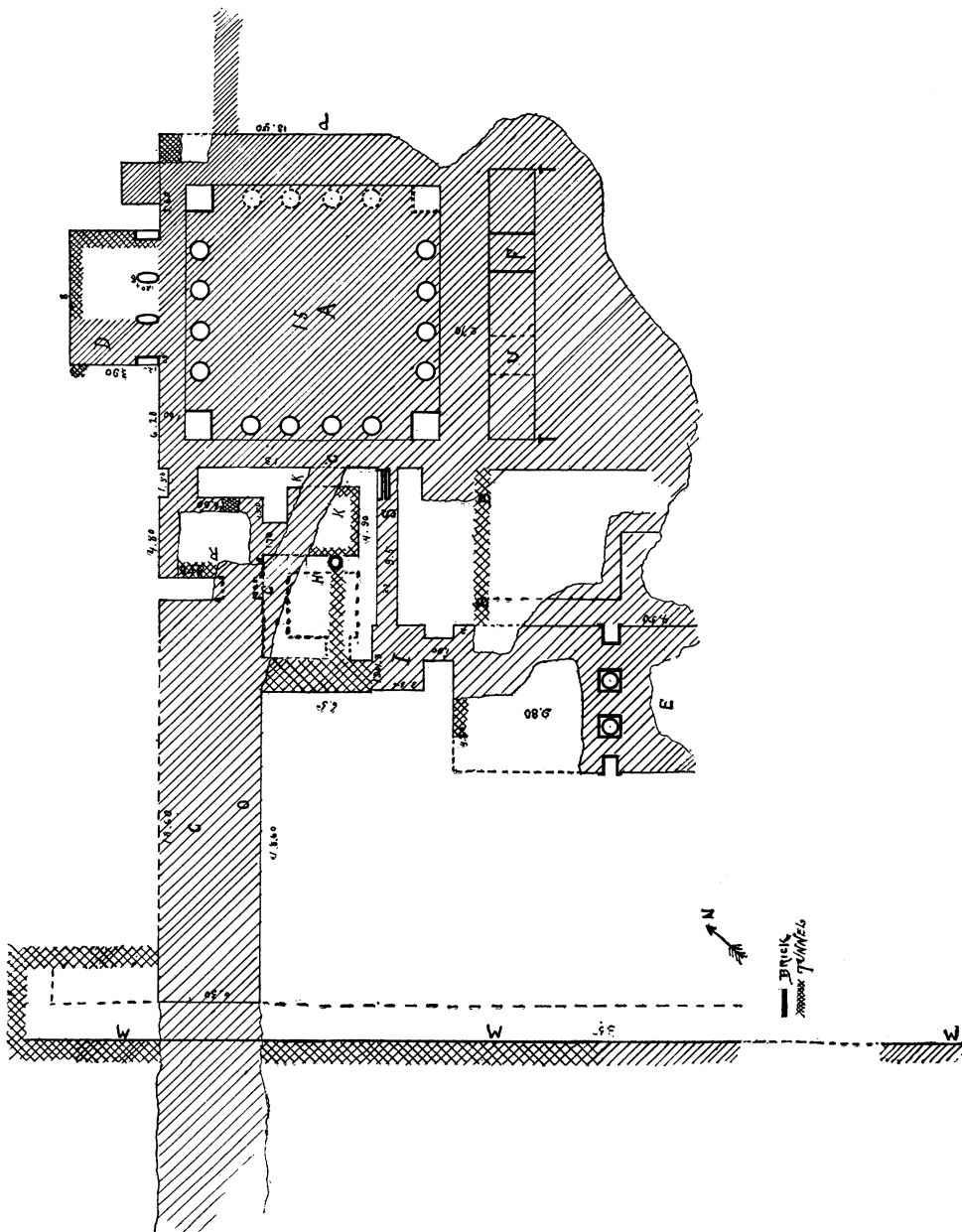


FIG. 54.—COURT OF COLUMNS AND SURROUNDING STRUCTURE. EXCAVATIONS OF 1890. SOLID STRAIGHT LINES ARE WALLS; DOTTED STRAIGHT LINES SUPPOSED WALLS; SHADED PORTIONS, EXCAVATIONS.

half of the columns was very rapid.

These columns were built of bricks especially made for the purpose. It will be observed from the plan in FIG. 50 that the six bricks of which the bulk of the column is composed form each a segment of a circle, with the apex truncated, so that they do not fit together in the center, but leave a considerable space to be filled up by brick fragments of various sizes and shapes, no special bricks having been made for that purpose. The bricks of the columns were laid in mortar, not in bitumen. They were red, hard and well baked, but somewhat brittle, tending to break up when the attempt was made to separate them from the mortar in which they were imbedded. After the columns were set up they were evidently dressed with some sharp instrument, for the purpose of cutting off projecting edges of bricks and mortar and making the surface of the columns smooth and true.

It will be perceived by an examination of the plan (FIG. 50) that the columns are not at exactly even distances from one another. So on the southwestern side the distance between the western corner and the nearest column is 1.62 m., while the distance between the southern corner and the next column is 1.76 m. The other spaces on that side are 1.69 m., 1.72 m. and 1.75 m. respectively. Such irregularities are rather characteristic of the architecture at Nippur, and I suspect of Babylonian architecture in general.

It was evident from the line of ashes which ran along by and outside of the columns and the heaps of ashes at each corner that, while the court itself was probably open to the heavens, palm beams had rested on the columns and supported a roof of a building about the court on all four sides. But at the outset the bearings of this evidence were somewhat confused, from the fact that after the destruction of the building its site was appropriated for burial purposes, and we were for a time inclined to suppose that part of the wood remains which we found in and about the colonnade were connected with the burials which had taken place there. Our excavations in the second year gave final evidence that this was not the case, but that the remains of burning were all to be attributed to the structure of which the court of columns formed a part; for in the second year we were able to show that this court was part of a very much larger structure, which was destroyed by fire.



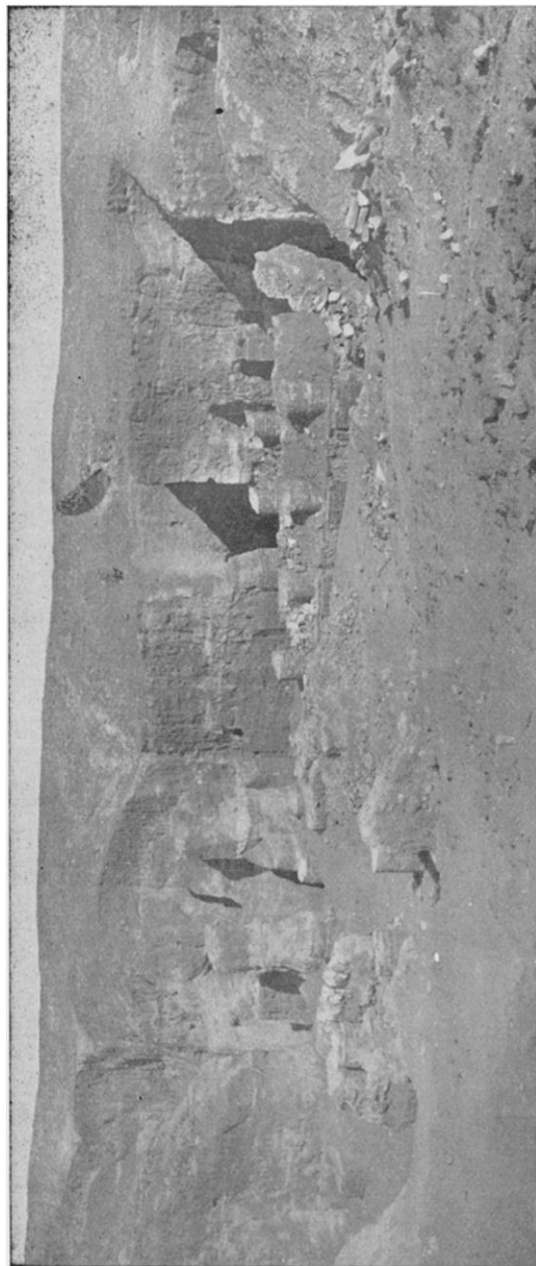


FIG.—55. COLONNADE ON CAMP HILL, SEEN FROM THE EAST; SHOWING ALCOVE ON NORTHWEST SIDE.

During the first year our trenches about the court had cut through a number of walls of mud brick, which were so disintegrated and ruined by fire that, with our lack of experience and the lack of experience of our men in detecting matters of this sort, we were unaware that we were cutting through walls. The accompanying plan (Fig. 54) will show so much of the building as we were able to excavate in the second year. To the northwest of the original court of columns we found an alcove (D on Fig. 54, also photograph, Fig. 55), which had evidently been roofed in, the roof being supported upon two rectangular oblong columns and two oval columns of brick, the axes of which were 1.20 m. and .60 m. These columns rested on a platform of three rows of bricks, beneath which was a metre of mud brick. As will be observed, this portico was not exactly in the middle. Nothing ever was exactly in the middle at Nippur.

The court had been surrounded by a building on all sides, excepting possibly the southeast—the walls of this building being of unbaked brick in large blocks. The wall bounding the court to the northeast (P on Fig. 54) was so destroyed by water, owing to the descent of the gully in this direction, that it could be traced only over a portion of its extent. On the southwest two passages opened out from the court, one of these giving entrance to a room (R), from which again another door opened into a long corridor (O). This corridor was explored by a trench begun in the first year and continued in the second year (Figs. 53 and 56), leading under the highest part of the hill and reaching finally a depth of over thirteen metres. This was a peculiarly difficult portion of the mounds to explore, since although the trenches were purposely made of unusual breadth, they constantly showed a tendency to cave in; and although we were fortunate enough to have no accidents, nevertheless more than once we found our trench filled up and the work of several weeks destroyed. Such a cave-in occurred toward the end of the second year of our excavations; and as at that time we were also exploring the temple, and much work remained to be done there, I abandoned the further investigation of this building on Camp Hill in order to concentrate all of my force on the temple hill. Mr. Haynes had a somewhat similar experience in the first year of his work, and as his force was small and the amount still to

be done on the temple hill very great, he abandoned the exploration of this building after a few weeks' work, in which he had done little more than clear out the debris from some of my former trenches, and concentrated his work upon the temple hill and the hill marked X in the plan of levels, in which we made our greatest discoveries of tablets.

In the center of the Camp Hill, under the 24 metre level, the



FIG. 56.—GREAT TRENCH AT CAMP HILL, LOOKING WEST. SHOWING WALL, M M, SECOND YEAR.

amount of superincumbent earth was so great that I conducted excavations along the walls of the building, largely by tunnels, as will be seen from the plan. There was on what seemed to be the extreme southwestern side of the building a very large fine wall (MM), shown in FIG. 56, built of the large blocks of mud brick spoken of above, burned red for the most part by the conflagration in which the building was destroyed. This, which I

judged to be the outer wall of the building, from its position, size and lack of doors, I traced, chiefly by tunnels, for the distance of 50 metres, finding a corner to the west, but none to the south, where the wall crossed a deep gully and was struck again on the next mound beyond.

Another passage way opening from the main court at S was closed by a door having a brick threshold and a stone door socket. At the other end of this corridor there had been a similar door and door socket. Charred beams of palm wood in this corridor showed the construction of the roof. Heaps of ashes, with pieces of tamarisk on the brick threshold, were the remains of doors and door-posts. The small chamber marked I, into which this corridor gave access, had apparently served as a granary, and was full of burned barley. It should be added that in the long corridor, O, we found at about the point marked by the letter O another deposit of burned barley, as well as the remains of burned palm logs from the roof.

From the chamber I a passage-way opened into a large room, which was divided into two parts by columns different from those in the large court, or in the smaller portico opening from it on the northwest (E; see also photograph, FIG. 57). There were two columns built in the wall, in the manner indicated in the plan, and two round columns set upon square bases, each of the bases consisting of four courses of bricks and resting on mud brick foundations. The circumference of these round columns was 3.95 m. Between the columns, from one side to the other, ran a low brick wall about as high as the top of the bases; the top of which, I suppose, marked the floor level of this room, so that, as in the court of columns, the square bases of the round columns were originally below the floor surface. This room was on the edge of a gully, toward the southeast, and was entirely washed away from the point where the lines stop.

The round brick construction marked H, in the series of rooms and corridors opening out of the court to the southwest, was a well, or more probably a water-cooler.

It will be seen on looking at the plan that at the southeast of the court first discovered there was a long low platform (TT), but no wall, as upon the other side. On this platform, which consisted of three courses of burned bricks resting on a substructure,

ture of mud brick, stood, as already stated, two columns of much larger size than any found elsewhere. The base of one of these columns was in place, as indicated at F. Traces of a second base I thought that I discovered at U. Remains of two round columns were found strewn here and there in the earth, from which it was clear that the diameter of the columns at the base must have been two metres, or more than double that of the columns of the court. This platform lay under



FIG. 57.—ROUND COLUMNS ON SQUARE BASES IN ROOM E.

a narrow mound separating the gully in which we found the court of columns from a much steeper gully to the southeast. Near one of these columns was a fragment of a wall of unburned brick with some courses of burned brick upon it, but what it meant or where it led to I do not know, since everything beyond this point was washed away, and it was impossible to obtain any clue for a reconstruction of the building on this side. The form of the platform, however, and the position and size of the two columns, suggest a gateway and an entrance to the court.

Whether the entrance was from another court of the building, or from the outside, it is impossible to determine.

Toward the northwest and the southwest the difficulties that met us were quite the opposite of those with which we had to contend at the northeast and southeast—namely, the fact of the rapid rise of the hill on those sides and the immense mass of earth



FIG. 53.—FRAGMENT OF ANCIENT STATUARY FOUND IN HOUSE OF LATER PERIOD.

under which everything was buried. The whole surface of the hill to the northwest and southwest was covered with a Jewish settlement, the houses of which were built of mud brick, and in almost every house we found one or more Jewish incantation bowls. In one of these houses on the hill to the southwest we found a curious pottery object, which we supposed to have be-

longed to a Jewish doctor or apothecary, and to have been intended rather for ornament or advertisement than for use. We concluded that it belonged to an apothecary or doctor, from the fact that there were in the same place several clay bottles sealed with bitumen, containing a mixture which we judged to be intended as medicine, although no chemical analysis has yet been made. Our conclusions may therefore be faulty on this point, but the discovery of Jewish bowls in the same house seems to settle the fact that it belonged to the Jewish colony. Kufic coins found in some of the houses of this settlement indicated that it was in existence as late as the VII century A. D. This Jewish town extended over a large part of the mounds to the southwest of the canal from Camp Hill (marked I on the plan of levels) to X, and is everywhere identifiable by the incantation bowls found in the houses, some of which are written in Syriac or even Arabic, although by far the larger part are in Jewish script. In one of the houses on I, close to the colonnade, was found a curious fragment, 21 centimetres in height, of a statue in black dioritic stone (photograph, FIG. 58). On one face, the obverse, was a ram in relief, held behind by a hand with very slender long fingers. The hand was relatively much larger than the ram, the middle fingers measuring .042 m., while the height of the ram over its hindquarters is only .11 m. On the edge of the fragment, in front of the ram, the breast and some of the drapery of a human figure can be seen. This is relatively smaller than the ram, and much smaller than the hand. On the reverse is the small of a human back, undraped, and corresponding in size rather to the hand than to either the breast or the ram. I suppose that this was found or dug up by the occupant of the house, somewhere, probably on the temple hill, which was at that time unoccupied or sparsely occupied, and seems to have served to some extent as a brick quarry for the later inhabitants of other parts of the mounds. It is one of the fragmentary evidences of the existence at Nippur, at some time, of stone statuary resembling that at Tello. It may be added that both on the temple hill and also at X, Mr. Haynes has now found objects bearing inscriptions of *patesis* of Tello, thus establishing on a still surer foundation the connection which I had conjectured from the fragments of statuary found at Nippur.

At the time of the Jewish occupation of the mounds the surface was already very uneven. The Jewish settlement occupied in general the higher portions of the surface of the mounds, which were thus still further increased in height, while the gullies were left unoccupied. Such partial settlements of the mounds outside of the temple hill, which is more uniform in its strata, and the consequent unevenness of stratification, have rendered the task of determining the dates of buildings and objects found at Nippur one of great difficulty. In one of the gullies on the northeast side of X (indicated by the letter E on the plan of levels) was found a



FIG. 59.—TRENCHES IN MOUND X, LOOKING WEST, SHOWING ROOMS OF HOUSE.  
CIRCA 2600 B. C.

series of rooms of unburned brick belonging to a building destroyed by fire (FIG. 59), in which were stored tablets of a very ancient period, several of them bearing the seal of Gamil-Sin of Ur, circa 2600 B. C. At the point marked F on the same mound was found a room used for the storage of unbaked tablets of the same period. These had been arranged on wooden shelves running around the walls, which, when the building was destroyed, fell to the ground with their precious freight. A brick well at this point was choked with earth, which we excavated down to the water level, recovering some hundreds of tablet fragments of the same period, which had fallen or been thrown in it. At C, at



a somewhat higher level, we found a fine deposit of tablets of the Cossaeon period, circa 1300 B. C. At H Mr. Haynes has found remains of the Sargon period (3800 B. C.), almost at the surface. In the same part of the mounds, and often at but a slightly higher level, only on the summits instead of in the valleys, are found the houses of the Jewish town. These houses are in all cases of unburned brick, and resemble, or in fact seem to be identical, with the houses of ordinary town Arabs of the present day in Hillah, Shatra, Diwaniyeh and similar towns in that region. Not only do we find that the houses of the present day in neighboring towns are identical in structure with those built by the Jews at Nippur about 700 A. D., but the ordinary structures of the earlier periods back to the time of Sargon are of the same type and material; and it is only in exceptional cases that the shape of bricks or details of architecture give any clue to date. A similar homogeneity exists in the pottery and household utensils found in the houses and graves. Naturally, as a consequence of long experience, we are finding marks of date in objects which at first seemed undateable, and Mr. Haynes is now able to fix with considerable certainty the period of some things about which I could reach no conclusion. Doubtless, in course of time, as the result of systematic and patient work, we shall be able to assign periods to much of the pottery, bricks and the like, and ultimately to determine the period of objects found, even where they are not accompanied by inscriptions. At present, however, we are compelled to rely upon inscriptions for chronological purposes.

I have already stated that the discovery of Kufic coins of the first Caliphs in some of the Jewish houses on Camp Hill suggested the date of the VII century B. C. for the Jewish town on the mounds of Nippur. In another place not far away the houses with Kufic coins were built over the ruins of those containing Jewish bowls, showing that the Jewish era also antedated the Kufic. In the house in which the curious piece of composite pottery mentioned above was found Jewish bowls and Parthian coins occurred together. We can thus carry the Jewish occupation of that part of the mounds about and above the building containing the court of columns back to the beginning of the Christian

era or a little earlier, and find that there was a considerable Jewish settlement at Nippur during a period of 600 years or more.

But at the same time that a part of the hill was occupied by a Jewish town, burials were taking place in other parts, and especially over and about the court of columns; so that, as I have already stated, we at first mistook this portion of the mounds for the necropolis of Nippur. These graves were so confused in time that it is impossible to talk of strata. One and the same tomb contains burials of different periods. Coins and seals found here show that these burials occurred in the Sassanian, Parthian, and apparently also in the Persian and Babylonian periods. Out of this confusion it was impossible to obtain any clue to the date of the columnar structure, which I supposed for a long time to be a building of late date—not earlier in any event than the Persian period, and probably influenced in the use of columns by Greek art. It was the connection of the court of columns with the huge, ramifying structure lying under the central mass of the hill which gave me the means of dating the colonnade, by a cut through the highest part of the hill—the part which had the most and the best preserved strata.

As shown by the plan of levels (PLATE XXI) and plan of building (FIG. 54), a broad trench was carried directly through the highest part of mound I, which had been occupied by our camp in the first year. At the point C, between the 14 and the 16 metre level, the houses which we found at the surface—the lines of which were actually visible without excavation—were above the Jewish settlement; but at the summit of the mound, at the 24 metre level, this proved not to be the case. We excavated first a series of rooms, several of which were plastered and whitewashed. The floors of these rooms were about 3 metres below the surface. The discovery of incantation bowls, one of them written in Syriac characters, in several of the rooms of this series, together with Kufic coins, settled quite satisfactorily the date of this stratum as about 700 A. D. Below this we found Jewish bowls and Sassanian and Parthian coins. At a depth of 5 or 6 metres below the surface we came across a second series of buildings, above and in which were a number of burials in clay slipper-shaped coffins. These burials had evidently taken place after the houses in the

second stratum had fallen into decay. There was nothing in these coffins or in the houses beneath them to determine date.

Below this we found no buildings and no proper strata, but only a few objects of various sorts loose in the earth. At 10 metres below the surface I felt confident that we were well into the Babylonian period, but we did not obtain any objects by means of which date could be proved beyond question until we reached a depth of 11 metres, at which depth we were on the level of the court of columns. Here we discovered quite close to the great wall MM, but on the outside of it, in a small tunnel run out from the wide trench, a curious set of pottery stored in a large urn (Fig. 60). There were three small boxes, the largest 10 cm.

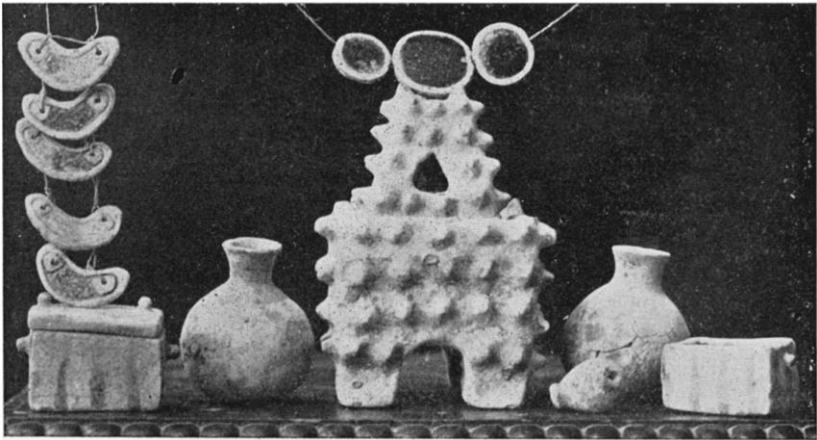


FIG. 60.—POTTERY OF COSSAEAN PERIOD.

square, two of them with covers, and three small vases, all quite peculiar in pattern, colored green and yellow in stripes. The largest box was ornamented with knobs. Along with these were more than a hundred small discs and crescents, mostly in black and white, pierced for purposes of suspension. This pottery did not seem to be connected with a burial, nor were there any contents in the boxes or vases excepting the earth which had fallen into them. There were no traces of house walls at this point.

While I was still uncertain as to the date of this pottery, or in fact of anything about this perplexing hill, in a small tunnel from the great trench on the opposite or southeastern side, at the depth of 11.20 metres, we discovered 245 baked tablets, practically en-

tire. These lay together in the earth, and the clay about them showed marks of burning. There was no trace of a wall immediately about them. Further excavation added about 53 tablets found in the adjoining earth, together with a very large number of fragments, all found within a radius of a few feet and apparently loose in the earth. Scarcely had we made this discovery, however, and secured the tablets, when the trench caved in, and we were unable to remove the superincumbent earth and reach our old level again that year.

In the first year of his work Mr. Haynes undertook a further

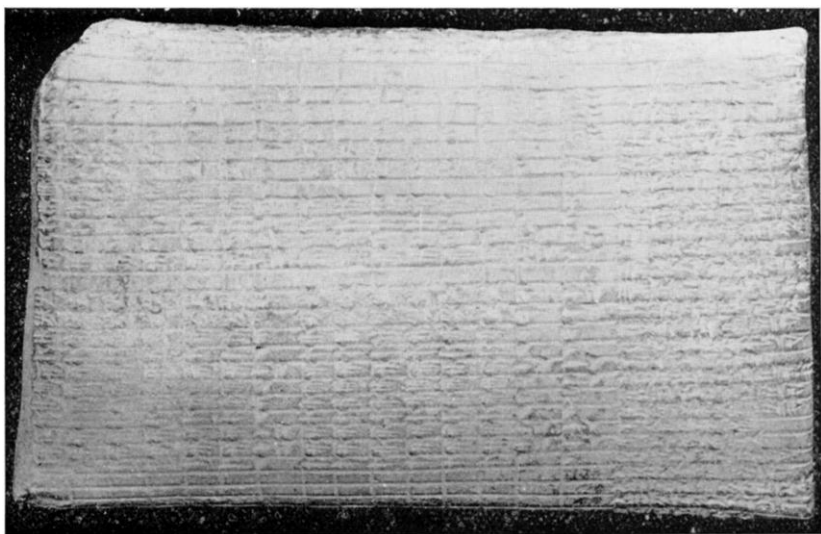


FIG. 61.—ACCOUNT TABLET OF NAZI-MARRUTTASH, A COSSAEAN KING OF BABYLON, 1284-1258 B. C. ACTUAL LENGTH ABOUT 20 CM.

excavation of this site, and had the good fortune to discover in the same locality a large number of tablets of the same type. I am unable to identify the precise spot at which he discovered his tablets. Mine were discovered at the spot marked B, on hill 1, (PLATE XXI) at which point, it will be observed, a tunnel is indicated in the great trench. On examination these tablets proved to be, without exception, records of the Cossaeon dynasty. The large tablet represented in the photograph (FIG. 61) bears the name of Nazi-Marruttash, and is a record of temple income, as are all the other tablets of this find. They are archives of the Cossaeon dynasty,

dealing with the receipts of the great temple of Bel. The date of Nazi-Marruttash is 1284 to 1258 B. C.

It will be observed that these tablets were not actually found in the large building containing the court of columns, but, as I think will have been made clear by my account of the excavations, they enable us to date accurately the stratum to which that building belongs. It was in existence at the time of the supremacy of the Cossaeon dynasty, and presumably, inasmuch as we found that some of the kings of that dynasty, like Kurigalzu II (1306-1284) and Kadashman-Turgu (1257-1241), son of Nazi-Marruttash, were great builders—we may not unfairly presume that this building was erected by the kings of that dynasty somewhere, let us say, between 1450 and 1250 B. C.

The endeavor to secure dates on the other side, that is before the erection of this building, by excavating beneath it, was not rewarded with success. The great trench through the centre of the hill was carried to the depth of 13 metres at the point where it strikes the great wall MM on the southeastern side of the wall (FIG. 54). At this depth we found other walls of unbaked brick belonging to buildings of an earlier era, and followed them for a little distance with tunnels, but without result. A long trench was projected across the entire hill to give us a section of the same, as will be seen by Mr. Field's plan (FIG. 51). Beneath the court of columns this latter trench descended (FIG. 53) to the depth of 13 metres, at which point we were exactly 24 metres below the 24 metre level, but nothing was discovered which could throw any light on the question of dates. Here and there we found pottery and household utensils, but always of the same common character which might have belonged to any period from Sargon down to the present time. At the depth of 13 metres we came upon a wall of unbaked brick (shown at bottom of trench in FIG. 53) equally lacking in characteristic features, and at this point we were obliged to abandon the shaft for fear of a cave-in.

I have given in some detail the plans of this building, as far as excavated, and an account of the excavations, because a peculiar interest attaches to the use of the round column. Columns of a different form, and very much more elaborate in some particulars, have been found by M. de Sarzec at Tello. I had the good for-

tune to discover, at a mound which will not be found on any map of the country with which I am familiar—Abu-Adham—a few hours distance from Tello, on the other side of the Shatt-el-Haï, a building with brick columns, precisely like those found in the court of columns at Nippur. Abu-Adham is one of a very remarkable group of mounds, lying unfortunately in the midst of sandhills, between Hammam and Umm-el-Ajarib (Mother of Scorpions), a little to the northward of the direct line between these two places.

The most important mounds of this group are those of Yokha, or more properly Jokha, which evidently represent a large and important city. The mounds of Yokha are extensive, but low lying, like those of Tello. Stone fragments are numerous, and one can pick up on the surface quantities of pieces of vases and other similar objects of stone of various sorts extremely well wrought. Such objects, as far as my experience goes, are an evidence of an antiquity antedating 2000 B. C., and their appearance on the surface is an indication that these mounds were, comparatively at least, unoccupied during the succeeding ages. Bricks found in a structure at the surface of the mounds were of decidedly archaic appearance, flat on one side and convex on the other, with thumb grooves in the convex surface, like those found beneath the ziggurat at Nippur in the pre-Sargonic stratum. Loftus, while exploring in this neighborhood, found at Yokha a small stone statue of the Tello school of art, dating from 3000 B. C. (*Travels and Researches in Chaldaea and Susiana*, p. 116, note). The University of Pennsylvania possesses a door-socket from Yokha bearing the inscription: "Gamil Sin, the mighty king, king of Ur, king of the four quarters of the earth, has built for Marduk his favorite temple." This gives us a date of 2600 B. C., and shows us that Marduk was the special god of the city; but it does not give us the date of the city. Tablets from Yokha suggest the same general date by their appearance and the character of the script, but are equally unsatisfactory for the purpose of naming the city.

About a quarter of an hour from Yokha, to the southwest, lies a small mound called Ferwa, the surface remains on which are of the same general character as those on Yokha. Beyond this again are two smaller mounds, belonging apparently to the same period, on one of which, Abu Adham, I found the building men-

tioned above, containing a court of columns of a still more interesting type architecturally than those found at Nippur (FIG. 62). There were visible two rooms, the larger 30x18 m., and the smaller, or inner room, 13x15.5, the walls of which without were relieved by half columns in brick. In the inner room were 18 round columns of brick, each about a metre in diameter, set upon square bases, each side of which measured 1.5 m. (I am not sure that the two center columns were not missing.) These columns were similar in construction to those at Nippur. From the evi-

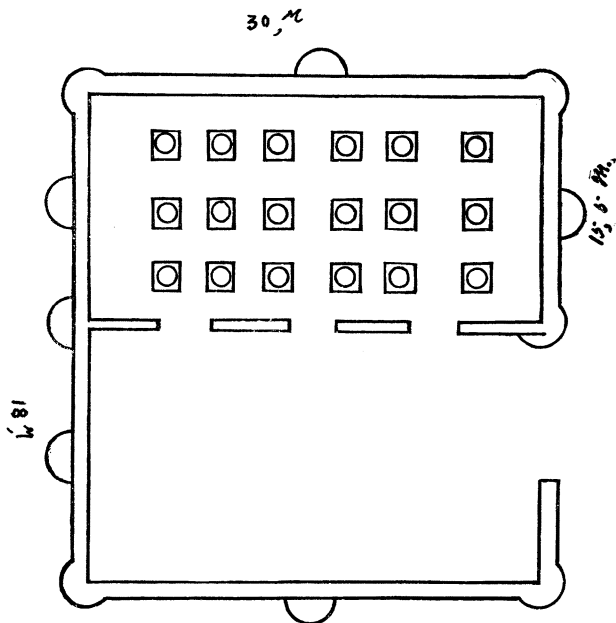


FIG. 62.—PLAN OF BRICK BUILDING WITH COLUMNS, AT ABU ADHAM.

dences of the surrounding mounds, I should judge that this building belonged to the middle of the third millennium B. C.

Abu Adham, as already indicated, lies in the sphere of influence of Tello. Less than an hour away toward the Shatt-el-Hai, on the direct road to Tello, lies the burial mound or necropolis of Umm-el-Ajarib. This latter mound was visited by de Sarzec (it is called Moulagareb in his report), who found there a head of a type similar to those found at Tello. My men found at the same place a small marble statue of Tello type, much defaced. At Hammam, also, two hours or so from Yokha toward the north-

east, Loftus found a badly broken and battered statue of Gudea. I suspect that this had been brought originally from Yokha or Umm-el-Ajarib, but it is at least evidence of the general period of the ruins of that section.

It is worthy of notice, moreover, that Yokha, Ferwa and Abu Adham lie on the course of the ancient Shatt-en-Nil, which emptied into the Euphrates by Warka or Erech, some three or four hours lower down; and that in the mound called Wuswas, at this latter city, Loftus found half columns of brick, seven shafts together, used to relieve a façade. He places the date of the building in which these half columns were found at not later than 1500 B. C. The use of columns and half columns of brick would seem to have been by no means uncommon in southern Babylonia, wherever, at least, the influences of the artists of Tello was felt, from the middle of the third millennium or earlier until about the thirteenth century B. C.

Another building of a quite different character and much later date was discovered by Mr. Haynes at Nippur last year, on the mound designated VI on the general plan of Nippur, published in the January number of the JOURNAL, between the Temple of Bel and the Shatt-en-Nil, to the southwest of the former. In a letter dated Sept. 22d, 1894, Mr. Haynes writes as follows: "Wednesday the various gangs, with the single exception of the small party detailed for special service on the ziggurat, were placed at different points on Mound VI, with results of moderate interest to the antiquarian. About midway between the temple of Bel and the Shatt-en-Nil, and slightly to the southward of west from the former, has been excavated a building of doubtful origin, built of burned bricks and lime mortar, in the style of the *ziarets* or holy tombs which abound in many countries of the East and South, notably in Turkey, Persia and India, and in the countries of Northern Africa.

"The enclosed sheet (Figs. 63 and 64) shows a plan and section of this building, which measures thirty-two feet and three inches in length and breadth, and stands parallel to the great Temple of Bel. Like the famous temple, its northeastern face varies twelve degrees from the northwest and southeast line. In each side is an opening seven feet and ten inches wide. The building was covered with a dome of bricks in lime mortar, and would appear to



have been conspicuous for its symmetry and proportions. Its walls to-day stand seven feet and eight inches high and six feet and nine inches in thickness, being well built and sufficiently strong to resist the lateral thrust of the dome. The walls are

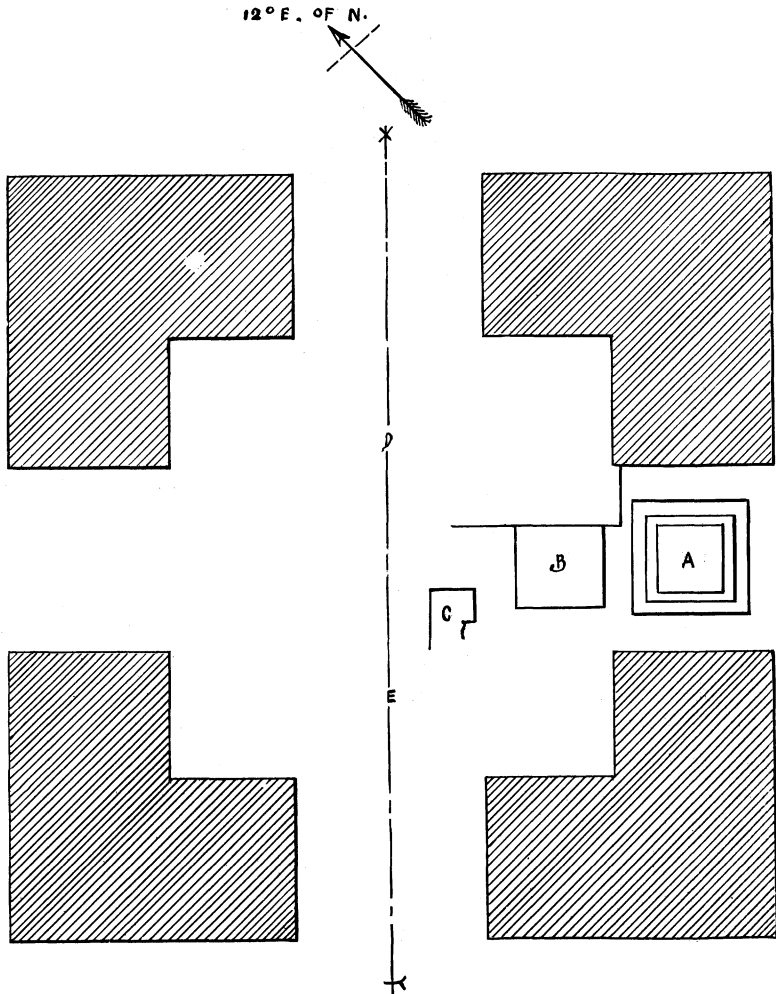


FIG. 63.—PLAN OF BUILDING OF BURNED BRICKS ON MOUND VI AT NIPPUR.  
SCALE .01083 M. = 1 M.

built of soft yellow bricks measuring twelve and one-half inches square, with a varying thickness of two and three-quarter inches to a maximum of three inches. In color, texture and mould the

quality of these bricks appears to be identical with that of the soft porous bricks built into the facing of the great cruciform projections during the last restoration of the temple of Bel.

"In the southeastern opening of the building is an altar marked A on the "Plan and Section" of the accompanying sheet (Figs. 63 and 64). The altar consists of three stages, each stage except the highest being composed of two layers of bricks measuring six inches. The altar stands upon a raised platform, and its uppermost stage has evidently lost a course of bricks, making the original height of the altar two feet, while across its top it measures three feet. The bricks composing the altar were laid in lime mortar, and its sides were smoothly plastered with mortar of the same kind. Upon and around the altar, to a considerable distance from it, were wood ashes six inches in depth, an accumulation that could not have been accounted for by an occasional fire. Within the building, and exactly in front of the altar, is a raised

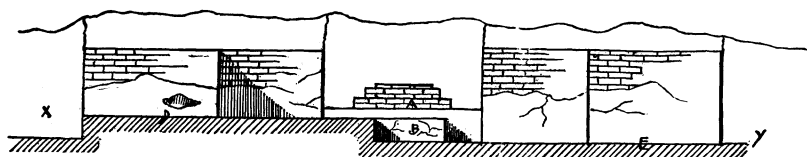


FIG. 64.—SECTION OF BUILDING OF BURNED BRICK ON MOUND VI AT NIPPUR, AT XY.

block of crude bricks, shown at B in both 'Plan and Section' of Figs. 63 and 64. The sides of this block were plastered in the same manner as the sides of the altar itself. It was distant from the altar about one foot. Possibly the officiating priest may have stood here while offering the sacrifices. There is a difference of one foot in the level of the brick pavement shown by the line X Y. There is no reason apparent to us why the pavement should have been made in different levels, unless it possibly was to elevate the altar and priest above the people in the lower part of the room.

"Looking at the plan of the building, you may judge it to have been an Arab tomb or *ziaret*, and therefore dismiss the subject from further consideration. At one stage in the progress of its excavation the same suggestion came to us in the field, but as the work proceeded this hypothesis appeared no longer tenable, and to-day we feel certain that this building is much older than the

Mohammedan era, though by whom it was built we have no certain clue. The bricks used in its construction were new bricks; at least they had not been previously used in other buildings, and as stated above, they are identical in dimensions, color and texture with the soft yellow bricks used in the upper courses of the skin or facing of the last reconstruction of the temple in the cruciform style, which would at least justify the hypothesis that the newly-discovered building belongs to the same era as the reconstruction of the temple. Besides, the orientation of the two buildings is exactly the same. The altar proves the building to

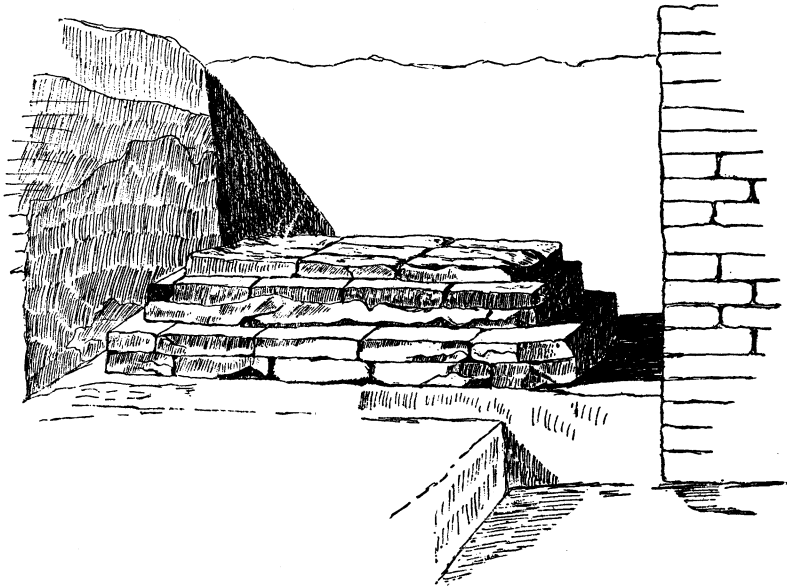


FIG. 65.—STAGED PLATFORM IN BURNED BRICK BUILDING, MOUND VI. BASE 4 FT. 10 IN. SQUARE; HEIGHT 1 FT. 3 IN.

have been older than the Mohammedan era. There are no inscriptions to determine its origin or purpose. We can only guess at the former and reason about the latter. Possibly the situation of the altar, in the opening toward the sun at its zenith, may be significant of its use. Might it not have been an altar and temple, or more properly a shrine, of the fireworshippers? The domed building might naturally have been adopted from Persia; and that domes were used in ancient times is clearly shown by a bas-relief on the monuments at Nineveh. From whatsoever country this type of building came, it is certain that the Arab tomb

and *ziaret* are its lineal descendants, and by no means a creation of the Saracens.

"Nearly two months ago an Arab of the desert brought to me a model in limestone of a three-staged altar, which in general plan bears a striking resemblance to the altar described above. The enclosed sheet (Figs. 65 and 66) gives a sketch of both these altars. FIG. 66 is the little altar of massive limestone. FIG. 65 is a sketch of the altar in the building described in the foregoing pages of this letter. It has lost its upper course of brick. The altar (FIG. 66), rudely made and somewhat irregular in form, has a circular depression in its top, thus creating a raised rim around its edge."

Mr. Haynes is inclined to think, as will be observed, that this building is of the same date as the cruciform structure built about the ziggurat of the Temple of Bel at Nippur (cf. January number

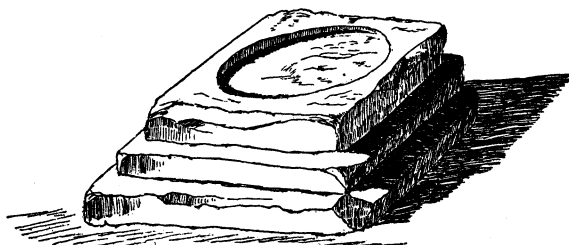


FIG. 66.—STAGED OBJECT OF STONE. BASE 4 IN. SQUARE; HEIGHT 2 IN.

of the JOURNAL). I have already pointed out the uncertainty of the date of the latter, but suggested for it a late Babylonian origin, which would seem to me not unsuitable for this building also.

It must be said, however, that a later date is also possible. Both the Parthians and Sassanians played an important role in this country at a later date, and both of them erected buildings of some importance. Loftus discovered at Warka very interesting remains of Parthian architecture, characterized especially by plaster mouldings and decorations. He identified them as Parthian and not Sassanian by the coins found with them. I found several mouldings of the same sort at Nippur, one of them in the vicinity of the square building described above, I believe, and ascribed them to the Parthian period on the ground of Loftus' discoveries. Zibliyeh, three hours to the north of Nippur, I identified as the ruins of a tower of the same period, largely owing to

the discovery of similar architectural mouldings. As this mound, which is a very prominent landmark, had been described by some travelers as the remains of an ancient Babylonian ziggurat, I conducted soundings there in the spring of 1890. It proved to be no ziggurat, but a square tower of unbaked brick, within and beneath which was a vaulted substructure of baked brick.

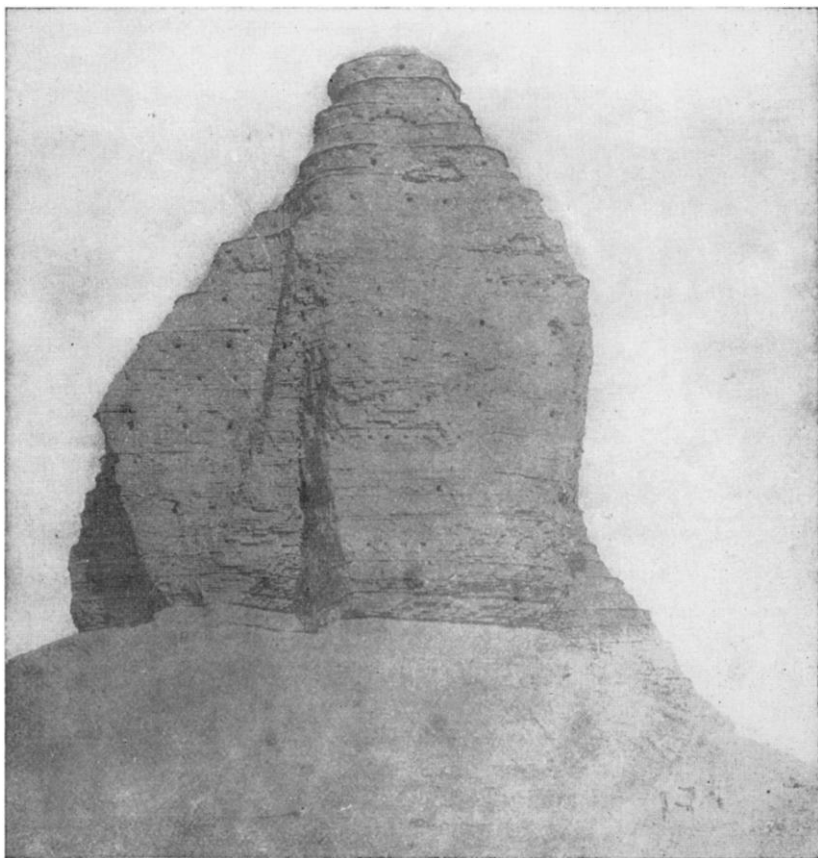


FIG. 67.—RUINS OF TOWER AT AKER KUF.

Above this latter, and surrounded by massive walls of unbaked brick, I found the remains of brick walls and plaster mouldings somewhat like those found by Loftus at Warka. The unbaked bricks of which the outer walls were composed were of a poor make, and were laid in reeds, the projecting ends of which, waving in the wind, may have given the ruin its modern name of

Zibliyeh. Low, long mounds, radiating in every direction, suggested that, like Akerkuf (Fig. 67), near Baghdad, it was a tower built at a canal centre for the regulation or defence of the canal system. But while Aker Kuf seems to have been of Cossaeon origin, Zibliyeh belonged to the Parthian or possibly even Sassanian period.

An exploration of the tower of Hammam, two days' journey south of Nippur, led me to reach a similar conclusion in regard to this ruin. Dr. Ward, in the report of the Wolfe expedition, described it as a ziggurat, concurring in what appears to have been the opinion of Loftus. The latter, as already stated,



FIG. 68.—RUINS OF HAMMAM FROM THE NORTH. PHOTOGRAPH OF WOLFE EXPEDITION.

found on the surface near this ruin a broken and defaced statue of Gudea, *patesi* of Tello, from which he inferred a high antiquity for the ruins. These latter he describes as quite extensive. I found a considerable number of low mounds radiating from a common centre, in or near which stood a tower of unbaked brick (Fig. 68) about fifty feet high and seventy-eight feet square, according to Loftus; nearer forty by seventy according to me. Sounding the low mounds, I found that they contained no remains, and were very shallow. The tower itself proved to be similar to that of Zibliyeh, described above. The corners were in general toward the cardinal points, but so irregularly orientated that the northern corner pointed  $20^{\circ}$  east of north. I concluded

that this also was no ziggurat, but a water tower at a canal centre, perhaps of Parthian origin.

The name Hammam (bath) is presumably late, and like that of the reedy, basket-like Zibliyeh, may have been given by the Arabs, owing to the bath-house-like appearance of the place. Or it may have been a reminiscence of the original object of the place as a water-tower, supposing that to have been its object. It is, however, a very common name for ruins of all descriptions throughout the whole Turkish empire.

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PLAN OF LEVELS SHOWING EXCAV





EXCAVATIONS AT NIPPUR.